Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 905-517-939

28 AUG 1990

Mr. Cristopher R. Anderson, Manager
Environmental Affairs
M.A. Hanna Company
1301 E. Ninth Street
Suite 3600
Cleveland, OH 44114-1824

Dear Mr. Anderson:

Re: L.E. Carpenter and Company
Amended ACO, Signed September 26, 1986
Scope of Work, Risk Assessment, Dated August 8, 1990

The New Jersey Department of Environmental Protection (Department) has reviewed WSI's letter of August 8, 1990 which outlines the risk assessment scope of work (SOW) for the L.E. Carpenter project, and approves the SOW providing the following comments are addressed in the SOW.

Specific Comments

Page 2, last sentence in 1st paragraph.

Contact with soil should include both incidental soil ingestion (100 mg/day for adults, EPA Exposure Factors handbook, 1989 and NJDEP Risk Assessment Guidelines) and dermal contact.

Page 2, Trespasser Exposure scenario does not include exposure duration, i.e. number of years of exposure. Department recommends 5 years for an exposure duration.

Page 3, 1st paragraph

Fishing scenario does not appear to be an appropriate exposure scenario because data from Rockaway River does not indicate high levels of contamination.

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Page 3, last paragraph Ground Water Use Scenario.

Current ground water for potable use needs to be confirmed within a mile radius. If ground water is being used, ingestion of ground water is an appropriate exposure pathway to evaluate.

Page 4, first paragraph, future use scenario.

Because future use is questionable, and a residential neighborhood currently is adjacent to the site, it is appropriate to consider a residential scenario for future use. EPA suggests using a 30 year exposure duration (90th percentile for living at one residence). Other appropriate exposure pathways to consider besides the ground water exposure pathway include direct contact with soils using children as the most conservative receptors.

Page 4, Ecological Impacts

Surface Waters

The approach of comparing surface water results with chronic Ambient Water Quality Criteria (AWQC) is good, however, it should be noted that the AWQC for metals vary with water hardness. Site specific hardness data should be determined and not estimated in deriving site specific AWQC. If chronic AWQC are not available for site specific contaminants, the contaminants should be compared to toxicity data found in the literature.

Sediments

All sediment samples should include analysis for Total Organic Carbon (TOC) and grain size. The extent of contamination should be fully characterized and a suitable background station be sampled. Sediment data should be compared with appropriate biological effects data (i.e. NOAA 1990) to evaluate potential impacts on biota. If site levels exceed those known to cause biological effects. it is suggested that either bioassays be performed on site sediments or a quantitative assessment of benthic macroinvertabrate community structure be performed to determine localized impacts.

Fish

The Department recommends that if the modeling effort to evaluate bioaccumulation by local fish populations shows the potential for accumulation to reach levels of concern, than subsequent biological sampling of fish be performed.

The reference to the above comments is NOAA, 1990, The Potential For Biological Effects of Sediment-Sorbed Contaminants Tested in the National Status and Trends Program. (NOAA Technical Memorandum NOS OMA 52).

Should you have any questions, you may contact me at (609) 633-1455.

Very truly yours,

E. D. Kaup

Edgar Kaup, P.E., Case Manager
Bureau of Federal Case Management

kj

c: V. Cappello, WSI
W. Lowry, BEERA/ETRA
J. Josephs, EPA II
J. Prendergast, BEERA